

Field Report

Yaquina Head Outstanding Natural Area

■ 1.0 Summary

Yaquina Head Outstanding Natural Area (YHONA), the site of Oregon’s tallest and second oldest continually active lighthouse and a protected place for intertidal plants and animals, is a candidate for the introduction of Alternative Transportation Systems (ATS). This site has significant levels of peak visitation during the summer months (mid-June through mid-September) and on weekends. A single route connects the entrance gate to two of the most heavily visited facilities – the Lighthouse and the Interpretive Center. Parking is congested near some of these attraction areas. Three ATS solutions have been identified, ranging from a point-to-point shuttle, a shuttle connecting YHONA to other area attractions, and a shuttle connecting the Interpretive Center to a satellite parking facility. Due to seasonal and weekly fluctuations in visitation, however, shuttle systems may not be economically feasible year round.

■ 2.0 Background Information

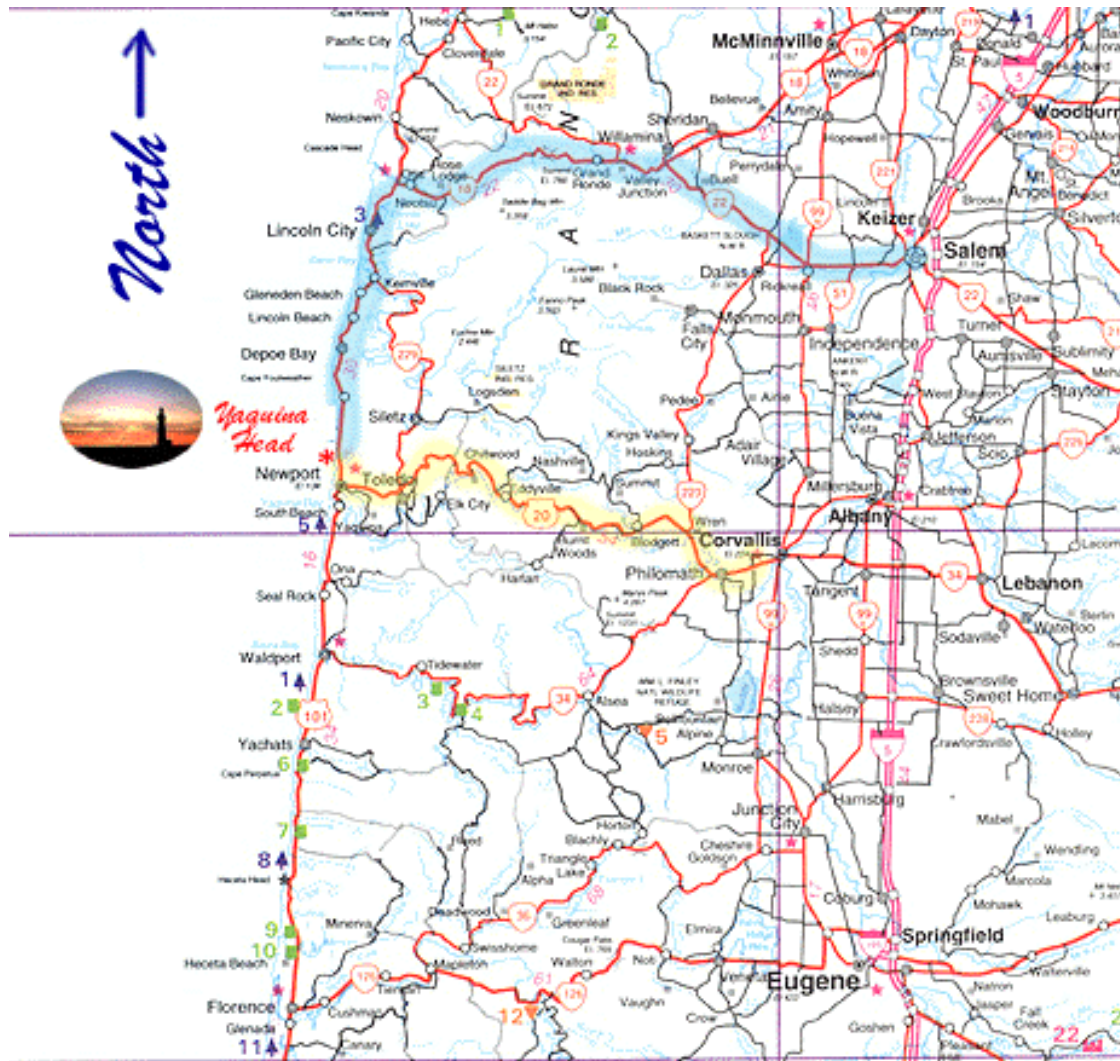
2.1 Location

YHONA is located along the central portion of the Oregon Coast in Lincoln County. Newport, with a population of nearly 8,000, is the largest city in Lincoln County and lies approximately three miles to the south of YHONA (see Figure 1). YHONA is accessible from U.S. Highway 101 (U.S. 101), a major north-south highway extending along the Pacific Coast. The main entrance station to YHONA is located approximately 1,500 feet from U.S. 101. The junction of U.S. 101 and Highway 20 in the City of Newport (three miles south) and the junction of U.S. 101 and Oregon State Highway 18 (near Lincoln City, 27 miles to the north) provide points of access to the site.

2.2 Administration and Classification

The BLM is charged with overall administration responsibility for YHONA. The U.S. Coast Guard is responsible for the maintenance and upkeep of the light apparatus inside the lighthouse. The USFWS is responsible for administering the Oregon Islands National Wildlife Refuge, which includes several rocks and islands lying immediately offshore from YHONA.

Figure 1. Yhona Vicinity Map

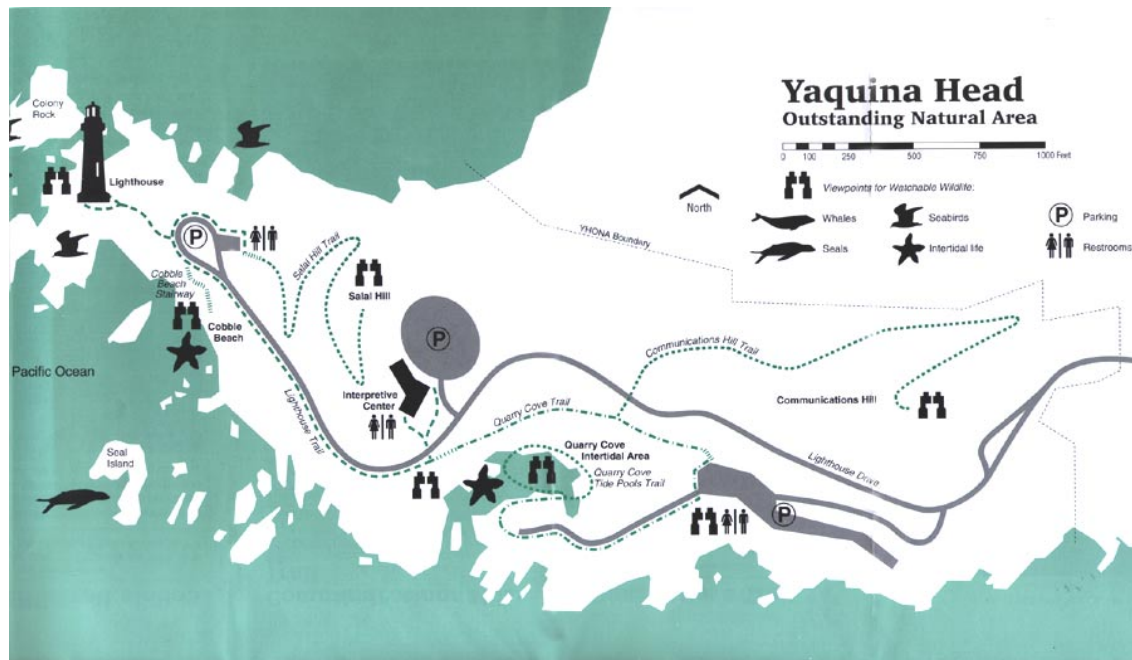


2.3 Physical Description

YHONA is a coastal headland formed by a lava flow that originated 14 million years ago. Major areas of the 100-acre site are connected by a series of trails, including to the Interpretive Center, historic lighthouse, and various tidal pools that were completed in May of 1997 (see Figure 2). The Interpretive Center and parking lot, maintenance building, and entrance booth were constructed during the early to mid 1990s. The Yaquina Head Light Station was established in 1872 and lighthouse-keepers lived on the site until 1966. Many areas of the site including the trail between the Lighthouse and the Interpretive Center are wheel chair accessible. In addition, the Quarry Cove Tidepools are the world's first man-made intertidal system that works as a natural system and is fully accessible. The key physical characteristics of YHONA that are related to transportation include:

- Access via a two-lane road, connected to U.S. 101, with a non-signalized intersection;
- Bicycle/pedestrian access provided between the Interpretive Center, Lighthouse, and Quarry Cove Intertidal Area via a series of walkways and bike lanes; and

Figure 2. YHONA Site Map



- Approximately 200 on-site parking spaces: 120 spaces at the Interpretive Center, 40 spaces near the Lighthouse, and 40 spaces near the Quarry Cove Intertidal Area.

2.4 Mission and Goals of the Outstanding Natural Area

In 1980, YHONA was established under Public Law 96-199, Section 119, to protect the unique scenic, scientific, educational and recreational values of the site. Major objectives of YHONA include:

- Conservation and development of the scenic, natural and historic values of the area;
- Continued use of the area for education, scientific study, and public recreation, which do not substantially impair the purposes for which the area was established; and
- Protection of wildlife in the area.

2.5 Visitation Levels and Visitor Profile

In 1998, the number of visitors to YHONA totaled approximately 470,000 (each entry counts as one person). Attendance levels fluctuate widely according to the time of year (YHONA is most frequently visited in the summer months), weather conditions (visitors are more numerous when weather is nice), and day of week (most often visited on weekends). The Quarry Cove was the most visited facility (191,214 persons), followed by the Lighthouse (88,344 persons) and the Interpretive Center (63,297 persons). Visitor activities that were not individually counted include visitation to Marine Gardens, bird watching, surfing, and hang gliding.

A 1992 study included a survey of YHONA visitors to determine their characteristic profiles by activity group. Respondents were divided into six major categories depending upon their main activity: Wildlife Observation/Photography, Tidepool Observation/Photography, Passive Day-Use, Active Day-Use, Visiting the Lighthouse, and Unclassified. The largest number of total visitors were ages 25 to 44 (approximately 32 percent), while approximately 27 percent were ages 45 to 64. Approximately 96 percent of all visitors were “White, not Hispanic”, while most of the respondents had some college education.

The survey revealed the following trip profile of YHONA visitors:

- **Trip Purpose** – The majority of respondents in all primary activity groups stated that their trip purpose to the Oregon Coast was for recreation/vacation.
- **Origin of Visitors** – The majority of the “active day-use” and “tidepool observer/photographer” visitors were from in-state. Lighthouse, “passive day-use” and “wildlife observer” visitors were most frequently from out-of-state.
- **Group Type/Size** – The majority of visitor group types were families. The majority of group sizes were two people, with the exception of tidepool observers, which most often consisted of groups of three to six persons.
- **Length of Stay** – The most frequent length of stay for all activity groups was two hours or less.

■ 3.0 Existing Conditions, Issues and Concerns

YHONA is one of a number of tourist attractions in the Newport area along the Oregon Coast. Nearly all visitors to YHONA travel via private automobiles or recreational vehicles (RV) along U.S. 101, which becomes heavily congested year round during weekends and daily during the summer months. YHONA’s primary access roadway connects with U.S. 101 at a non-signalized intersection, which often backs up during peak periods. Currently, the total overall number of parking spaces on-site is sufficient, but spaces are limited at the Lighthouse parking lot.

Figure 3. Lighthouse Drive

An accessible pathway and two-lane Lighthouse Drive connects the Interpretive Center to the Lighthouse. The parking area for the Lighthouse fills up first and is limited to approximately 40 cars.

3.1 Transportation Conditions, Issues and Concerns

The central transportation issue at YHONA is the lack of parking spaces around the Lighthouse and the congestion that results from cruising looking for parking. With the exception of school groups, nearly all visitors to YHONA arrive via private automobile. Most stay between one to two hours and park in one of three areas. Currently the total amount of parking at YHONA is generally adequate, but the smaller lots fill up first. The smallest parking area is near the Lighthouse, which conversely has the largest visitor demands. On busy days, vehicles often circle near the Lighthouse until a parking space becomes available, rather than park at the Interpretive Center and walk approximately one-third of a mile to the Lighthouse. Wheelchair accessible trails are available between the major attractions, including the Interpretive Center, the Lighthouse and Quarry Cove Tidepools. If transit were available between the Interpretive Center and many attractions, Lighthouse Drive could be closed to vehicular traffic. Restricting traffic in this natural setting would enhance the visitor experience.

The site entrance is located on Lighthouse Drive approximately 1,500 feet from the intersection of U.S. 101. Lighthouse Drive also provides access to restaurants on both the north and south sides, within 100 feet of U.S. 101. In addition, access to six to 10 residential housing units on the southside of Lighthouse Drive is within 100 feet from the U.S. 101 intersection.

U.S. 101 is the major north-south route for Oregon Coast traffic and is often heavily traveled during the summer months and on weekends. In addition, the intersection of Lighthouse Drive and U.S. 101 is spaced within 100 feet of the intersection immediately to the south, creating possible turn conflicts and traffic operational issues. Together, these intersections become heavily congested during peak periods. Funds for improvements and traffic signalization are included in the State legislation to increase the gasoline tax by five cents. But before the gas tax is enacted, it must pass a referendum by the voters. Should this referendum fail to pass, the Oregon Department of Transportation (ODOT) would seek federal funding under the Scenic Highways Program. As visitation to YHONA continues to increase, the queue of cars at the station entrance gate could reach U.S. 101, creating significant traffic problems.

Figure 4. Accessible Quarry Cove Tidepools with parking area above.

The City of Newport is exploring the feasibility of operating a shuttle system between different attraction sites and some of the local hotels. This system would probably not initially include the YHONA, since it is too far away from the other attractions.

A scheduled bus route is operated by the Lincoln County Transit along U.S. 101 from Yachata north to Lincoln City. Between Newport and Lincoln City, buses operate four trips daily, Monday through Friday. The nearest stop to YHONA is at the Wal-Mart store, approximately one mile to the south along U.S. 101. The YHONA entrance is located too far from U.S. 101 to make local bus service to YHONA feasible.

Bicycling provides an alternative means of accessing YHONA. There are paved shoulders or bicycle routes along parts of U.S. 101, but there are no designated bicycle routes in the immediate vicinity between U.S. 101 and the YHONA entrance station. Dedicated bike lanes on Lighthouse Drive, from the intersection of U.S. 101 to the Interpretive Center, would facilitate access to the site by bike riders and encourage greater use of this mode of transportation.

3.2 Community Development Conditions, Issues and Concerns

Newport has a population of nearly 10,000 persons and major industries include tourism, fishing, and wood products. YHONA, one of several tourist attractions in Newport, is located within the incorporated limits of the City, three miles from the center of town. The other major tourist attractions are all located near the city center in close proximity to each other (i.e., Newport Bayfront, Nye Beach, Marine Sciences Center, Oregon Coast Aquarium).

3.3 Natural or Cultural Resource Conditions, Issues and Concerns

YHONA was established as a protection area for wildlife habitat and for the conservation and development of the scenic, natural, and historic values of the area. Natural and cultural resources of special concern are identified below.

Light Station – The Yaquina Head Light Station is Oregon’s tallest and second oldest active lighthouse. The Lighthouse is presently on Oregon’s statewide inventory of historic sites and in the National Register of Historic Places.

Vegetation – A complex mixture of herb and shrub-dominated plant communities covers the YHONA headland. Three plant species are considered uncommon and of special interest: the Alaska rein orchid, seaside gold-fields, and sea kale. These species are not on endangered lists, but fall under a “sensitive” plant species category, which are either threatened by coastal development or are rare in North America.

Wildlife – YHONA is an important location for bird breeding and for the use of the headlands area during periods of migration and wintering. Birds are most abundant at YHONA during the breeding season, which occurs from April through July. Migrating and wintering bird species are found at YHONA throughout the year, but less frequently during June and July. Two “endangered” bird species are known to use the headlands during migration along the Oregon coast. The “threatened” California gray whales are also routinely observed in the waters off YHONA.

The natural and cultural resource issues related to transportation are:

- Maintaining the historic character of the Lighthouse and its setting in the context of increasing visitation and automobile congestion. Automobile traffic associated with visitors wanting to park close to the Lighthouse causes congestion within the site and diminishes the historic character of the area.
- Automobile traffic also brings noise and air pollution to YHONA and impacts the visitor experience by diminishing the natural setting of the area.

3.4 Recreation Conditions, Issues and Concerns

The primary recreational activities on YHONA are passive, with the exception of bicycling, surfing near the Quarry Cove Parking Lots, and hang gliding from Communications Hill. Passive activities include walking along the YHONA pathways, exploring the tidepools, photographing and observing the wildlife, and picnicking.

These recreational users often park on-site and can further limit the supply of parking during peak visitation periods.

■ 4.0 Planning and Coordination

4.1 Unit Plans

All the facility improvement projects as identified in the 1986 Management Plan (Project Plan and Environmental Assessment, Yaquina Head Outstanding Natural Area, April 1986) have been implemented. Future management plan updates would likely not include development of new facility projects, but would strive to improve the visitor experience by improving existing facilities, enhancing the cultural and natural resources, and addressing transportation needs.

4.2 Public and Agency Coordination

The YHONA Site Manager is a member of the City of Newport Chamber of Commerce and coordinates closely with managers of other visitor attractions in the Newport area, including the Marine Sciences Center and the Oregon Coast Aquarium. The feasibility of a shuttle service connecting the three attractions is currently under discussion. In addition, YHONA is actively involved in a number of coordination activities, including the following:

- Working with the City of Newport Planning Director and the Lincoln County Public Works Department to seek improvements to the intersection of U.S. 101 and Lighthouse Drive.
- Cooperating with the U.S. Coast Guard, which is responsible for operation and maintenance of the Yaquina Head Lighthouse.
- Working with Yaquina Lights, a private non-profit group, which raises funds for YHONA and supports YHONA interests with the community.

■ 5.0 Assessment of Need

5.1 Magnitude of Need

ATS have the potential to enhance the visitor experience at YHONA by reducing vehicular traffic and congestion at the site. The number of visitors to YHONA was nearly 474,000 in 1998, after having peaked at nearly 540,000 in 1996. The establishment of user fees in October 1998 led to a reduction in visitation levels, but during the next few years visitation levels are expected to reach the peak levels experienced in 1996.

5.2 Feasible Alternatives

Based upon review of visitor access patterns and the physical site configuration, there are several feasible transit access alternatives, including the following:

1. **Point-to-Point Shuttle between Interpretive Center, Lighthouse, and Quarry Cove Tidepools** – A regularly scheduled shuttle or electric tram service between the Interpretive Center, Lighthouse, and Tidepools would enhance the visitor experience by enabling the restriction of private vehicle access. The schedule of the shuttle system would vary according to the level of visitation; i.e., more frequent service during the summer months and on weekends. The route would cover approximately two miles round-trip and with 10 to 15 minutes and no more than 30 minutes headways.

2. **In-Town Circulator with Shuttle to the Interpretive Center** – A regularly scheduled shuttle service could run between the YHONA Interpretive Center and other area attractions such as the Marine Science Center and the Oregon Coast Aquarium. A single admission fee could be charged for all three attractions to encourage utilization. This alternative could be designed as either a fixed-route or a demand-responsive system. The route would cover approximately 10 miles round-trip with 30 minutes and no more than 60 minutes headways. This service could also be implemented in a modified demand-responsive mode with service to specific motels when requested.
3. **Shuttle Between the Interpretive Center and a Satellite Parking Area** – An off-site park-and-ride lot could be established with shuttle service connecting to the Interpretive Center. This is a long-range option that would be implemented as visitor levels increase to the point where the amount of parking spaces at YHONA becomes more critical. The route would cover approximately two miles round-trip with 10 to 15 minutes headways. It would be necessary to integrate this system with signs and other information services on U.S. 101 so that drivers would be aware when the Interpretive Center parking is full.

Any transit system at YHONA should:

- Allow consideration to limit auto access on YHONA roadways;
- Accommodate disabled visitors;
- Meet demands and maintain the quality of the visitor experience;
- Include an interpretative narrative by the driver (or audio playback message);
- Utilize the latest traveler information technology to inform riders of the timing of the next shuttle and/or the shuttle schedule. Lobby displays at motels, kiosks and cable television are among the methods that could be used;
- Include attractive signs and maps indicating the route, stops, fares, etc.; and
- Utilize a vehicle technology or propulsion system that reduces emissions and minimizes offensive odors and noise.

■ 6.0 Bibliography

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■ 7.0 Persons Interviewed

Steve Gobat, Site Manager, Yaquina Head Outstanding Natural Area

Mike Shoberg, Planning Director, City of Newport